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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/025,910	12/26/2001	Myong Gi Jang	8733.539.00	7515
30827	7590	10/28/2003	EXAMINER	
MCKENNA LONG & ALDRIDGE LLP			ERDEM, FAZLI	
1900 K STREET, NW			ART UNIT	
WASHINGTON, DC 20006			PAPER NUMBER	
			2826	

DATE MAILED: 10/28/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/025,910	JANG, MYONG GI	
	<b>Examiner</b>	<b>Art Unit</b>	
	Fazli Erdem	2826	

-- Th MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 23 July 2003.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3, 7-13 and 17-26 is/are rejected.
- 7) ☒ Claim(s) 4-6, 14-16 and 27-30 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                  | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____  |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)         | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other: _____                                    |

## **DETAILED ACTION**

### ***Allowable Subject Matter***

1. Claims 4, 5, 6, 14, 15, 16, and 27-30 objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1 and 2 rejected under 35 U.S.C. 103(a) as being unpatentable over Takeishi (US 2001/0005240) in view of Moon (6,392,626) further in view of Kumanagi (JP 09034381) further in view of Takahashi et al. (JP 7-239449) further in view of Iizumi (4,850,228).

Regarding Claims 1 and 2, Takeishi discloses a signal processing circuit board and liquid crystal display apparatus with variable resistor which are hardly declined in the mechanical strength while its variable resistor is not limited to one particular location for the installation where the circuit board includes a board body, a variable electronic element, and a hole. The variable electronic element is mounted in a mounting side of the board body. The variable electronic element has an operating member to control an output outputted from the variable electronic element in a single side of the variable electronic element. The hole is provided in the board body. The operating member is positioned in the hole such that the operating member points in the other side opposite to the mounting side of the board body. Takeishi fails to

disclose the cover configuration, shield cover position configuration, openable structure and openable structure in the required manner. However, Moon discloses a liquid crystal display device having different common voltages where the required shield cover structure is disclosed. Furthermore, Kumagai, discloses a structure for attaching variable resistor to liquid crystal display section where the required cover position structure is disclosed. Takahashi et al. disclose a laser pointer where the required openable structure is disclosed. Iizumi et al. disclose a pressure meter where the required openable structure in the required manner is disclosed.

It would have been obvious to one of having ordinary skill in the art at the time the invention was made to include the required cover configuration, cover position configuration, openable structure, and openable structure in the required manner in Takeishi as taught by Moon, Kumagai, Takahashi, and Iizumi respectively, in order to have a liquid crystal display device with better performance.

3. Claim 3 rejected under 35 U.S.C. 103(a) as being unpatentable over Takeishi (US 2001/0005240) in view of Moon (6,392,626) further in view of Kumanagi (JP 09034381) further in view Takahashi et al. (JP 7-239449) further in view of Iizumi (4,850,228) further in view of Adachi et al. (6,025,901).

Regarding Claim 3, Takeishi, Moon, Kumanagi, Takahashi et al., and Iizumi combination fail to disclose the chamfered structure. However, Adachi et al. disclose a liquid crystal display device and method for producing the same where the required chamfered structure is disclosed.

It would have been obvious to one of having ordinary skill in the art at the time the invention was made to include the required chamfered structure in Takeishi, Moon, Kumagai,

Takahashi et al and Iizumi combination as taught by Adachi et al. in order to have a liquid crystal display device with better performance.

4. Claim 7 rejected under 35 U.S.C. 103(a) as being unpatentable over Takeishi (US 2001/0005240) in view of Kumanagi (JP 09034381) further in view of Imaeda (6,025,644).

Regarding Claim 7, Takeishi discloses a signal processing circuit board and liquid crystal display apparatus with variable resistor which are hardly declined in the mechanical strength while its variable resistor is not limited to one particular location for the installation where the circuit board includes a board body, a variable electronic element, and a hole. The variable electronic element is mounted in a mounting side of the board body. The variable electronic element has an operating member to control an output outputted from the variable electronic element in a single side of the variable electronic element. The hole is provided in the board body. The operating member is positioned in the hole such that the operating member points in the other side opposite to the mounting side of the board body. Takeishi fails to disclose the required liquid crystal display device surface configuration, and slit configuration. However, Kumagai, discloses a structure for attaching variable resistor to liquid crystal display section where the required liquid crystal display device surface configuration is disclosed. Furthermore, Imaeda discloses a liquid crystal display and apparatus using the same where the required slit structure is disclosed.

It would have been obvious to one of having ordinary skill in the art at the time the invention was made to include the required surface configuration and the slit configuration in

Takeishi as taught by Kumagai and Imaeda, in order to have a liquid crystal display device with better performance.

5. Claims 8 and 10 and rejected under 35 U.S.C. 103(a) as being unpatentable over Takeishi (US 2001/0005240) in view of Kumanagi (JP 09034381) further in view of Imaeda (6,025,644). Further in view of Hung et al. (6,188,568).

Regarding Claims 8 and 10, Takeishi, Kumanagi, and Imaeda combination fail to disclose the required flap structure. However, Hung et al. disclose a display panel for a portable computer where the required flap structure is disclosed.

It would have been obvious to one of having ordinary skill in the art at the time the invention was made to include the required flap configuration Takeishi, Kumagai, and Imaeda combination as taught by Hung et al. in order to have a liquid crystal display device with better performance.

6. Claims 9 and 11 and rejected under 35 U.S.C. 103(a) as being unpatentable over Takeishi (US 2001/0005240) in view of Kumanagi (JP 09034381) further in view of Imaeda (6,025,644). Further in view of Hung et al. (6,188,568) further in view of Adachi et al. (6,025,901).

Regarding Claims 9 and 11, Takeishi, Kumanagi, Imaeda, and Hung et al. combination fail to disclose the required chamfered structure. However, Adachi et al. disclose the required chamfered structure.

It would have been obvious to one of having ordinary skill in the art at the time the invention was made to include the required chamfered configuration in Takeishi, Kumagai,

Imaeda, and Hung et al. combination as taught by Adachi et al. in order to have a liquid crystal display device with better performance.

7. Claims 12, 13, 17-20 rejected under 35 U.S.C. 103(a) as being unpatentable over Takeishi (US 2001/0005240) in view of Yoshii et al. (6,388,722) further in view of Takahashi et al. (JP 7-239449) further in view of Iizumi (4,850,228) further in view of Huang (5,179,856).

Regarding Claims 12, 13, 17-20, Takeishi discloses a signal processing circuit board and liquid crystal display apparatus with variable resistor which are hardly declined in the mechanical strength while its variable resistor is not limited to one particular location for the installation where the circuit board includes a board body, a variable electronic element, and a hole. The variable electronic element is mounted in a mounting side of the board body. The variable electronic element has an operating member to control an output outputted from the variable electronic element in a single side of the variable electronic element. The hole is provided in the board body. The operating member is positioned in the hole such that the operating member points in the other side opposite to the mounting side of the board body. Takeishi fails to disclose the cover configuration, exposable structure and exposable structure in the required manner, and elastic/deformable structure. However, Yoshii et al. disclose a backlight system for minimizing non-display area of liquid crystal display device where the required shield cover structure is disclosed. Takahashi et al. disclose a laser pointer where the required exposable structure is disclosed. Iizumi et al. disclose a pressure meter where the required exposable structure in the required manner is disclosed. Huang discloses a pressure gauge where the required elastic/deformable structure is disclosed.

It would have been obvious to one of having ordinary skill in the art at the time the invention was made to include the required cover configuration, exposable structure, exposable structure in the required manner and elastic/deformable structure in Takeishi as taught by Yoshii et al, Takahashi, Iizumi, and Huang respectively, in order to have a liquid crystal display device with better performance.

8. Claim 21-26 rejected under 35 U.S.C. 103(a) as being unpatentable over Takeishi (US 2001/0005240) in view of Yoshii et al. (6,388,722) further in view of Imaeda (6,025,644).

Regarding Claim 21-26 Takeishi discloses a signal processing circuit board and liquid crystal display apparatus with variable resistor which are hardly declined in the mechanical strength while its variable resistor is not limited to one particular location for the installation where the circuit board includes a board body, a variable electronic element, and a hole. The variable electronic element is mounted in a mounting side of the board body. The variable electronic element has an operating member to control an output outputted from the variable electronic element in a single side of the variable electronic element. The hole is provided in the board body. The operating member is positioned in the hole such that the operating member points in the other side opposite to the mounting side of the board body. Takeishi fails to disclose the cover configuration, and elastic/deformable structure. However, Yoshii et al. disclose a backlight system for minimizing non-display area of liquid crystal display device where the required shield cover structure is disclosed. Imaeda discloses a liquid crystal display and apparatus using the same where the required elastic/deformable structure is disclosed.



It would have been obvious to one of having ordinary skill in the art at the time the invention was made to include the required cover configuration and elastic/deformable structure in Takeishi as taught by Yoshii et al and Imaeda respectively, in order to have a liquid crystal display device with better performance.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Fazli Erdem whose telephone number is (703) 305-3868. The examiner can normally be reached on M - F 8:00 - 5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nathan Flynn can be reached on (703) 308-6601. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 308-7722 for regular communications and (703) 308-7724 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

FE  
October 20, 2003

Supervisory Patent Examiner  
Technology Center 2800